

CLAIMS

- 5 1. Vertical elevator traction system with built-in adjustment, safety and emergency means, characterised in that it consists of a motor made up of a rotor (1), an asynchronous stator (2), a traction pulley (3), an electro-mechanical brake (7) and a movement detection system.
- 10 2. Vertical elevator traction system with built-in adjustment, safety and emergency means according to the previous claim, characterised in that the rotor (1) includes a "squirrel cage" made of copper in the form of rectangular bars arranged in a circle, with an inclination its bars of approximately 8% and with a diameter of 280 mm and a central ring.
- 15 3. Vertical elevator traction system with built-in adjustment, safety and emergency means according to the first claim, characterised in that the stator (2) is made up of a set of thin sheets and 72 winding grooves, a multiple of 12 poles, said sheet being fixed between two rings with through screws that make up the fixed statorical set.
- 20 4. Vertical elevator traction system with built-in adjustment, safety and emergency means according to the first claim, characterised in that the electro-mechanical brake (7) is made up of an electromagnet with an over-excitation current and brake shoes on the pulley.
- 25 5. Vertical elevator traction system with built-in adjustment, safety and emergency means, according to the first and the previous claims, characterised in that the traction pulley (3) is rigidly incorporated in the very axis (4) of the rotor (1), and on which there is a flat, cylindrical zone where it is activated directly by a brake shoe that regulates the  
30 brake torque required by the elevator.
- 35 6. Vertical elevator traction system with built-in adjustment, safety and emergency means according to the first claim, characterised in that the movement detection system is made up of a digital encoder (8) elastically joined to the axis of the rotor (4) that is in charge of transmitting the information on the rotation speed of the rotor (1).
- 40 7. Vertical elevator traction system with built-in adjustment, safety and emergency means according to the first claim, characterised in that it includes continuous current batteries incorporated within it in order to make the motor work directly by way of a frequency shifter in the absence of exterior power current.
- 45 8. Vertical elevator traction system with built-in adjustment, safety and emergency means according to the first claim, characterised in that the system does not need a machine room since it is installed in the lift shaft itself, upon a metal bed, which in turn rests on the walls of the supporting building.